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BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Application Number: 10/694,153
Filing Date: October 27, 2003
Appellant(s): LENNON ET AL.

James M. Bagarazzi
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 12 August 2009 appealing from the Office action mailed 03 March 2009.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The following are the related appeals, interferences, and judicial proceedings known to the examiner which may be related to, directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal:

Ex parte Haynes (B.P.A.I. Appeal No. 2008-3926, Application No. 10/325,140, decided 26 August 2008)

*Ex parte Haynes (*B.P.A.I. Appeal No. 2008-1795, Application No. 10/694,420, decided 30 April 2008)

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is substantially correct. The changes are as follows: The claims are not rejected over the references relied upon for translation and citation. Thus, the claims are not rejected

over US Patent No. 6,966,762 B1, US Patent No. 6,974,316 B2, and US Patent App. Pub. No. 2004/0028763 A1.

GROUNDS OF REJECTION NOT ON REVIEW

The following grounds of rejection have not been withdrawn by the examiner, but they are not under review on appeal because they have not been presented for review in the appellant's brief:

- Whether Claims 1, 11, and 23 are unpatentable on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 1 of copending Application No. 10/687,006.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

6,966,762 B1	Maggio, Rosario et al.	11-2005
3,052,009	Epstein, Herman et al.	09-1962
6,117,379	Haynes, Brian D. et al.	09-2000
6,974,316 B2	Maggio, Rosario	12-2005
2004/0028763 A1	Schmit, Laurent et al.	02-2004
6,660,218 B2	Davis, Michael C. et al.	12-2003
WO 02/052071 A2	Haynes, Brian D. et al.	07-2002
WO 00/65134 A1	Maggio, Rosario et al.	11-2000
FR 2,825,381 A1	Maggio, Rosario	12-2002
WO 02/34990 A1	Schmit, Laurent et al.	05-2002

WO 93/21370 A1 Trimble, Lloyd E. et al. 10-1993

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 112

Claim 23 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

With respect to Claim 23, the claim requires the force of attenuation to be provided "air consisting of attenuation air only entering… from the drawing slot sidewall opposite…." The Examiner interprets this claim language to mean that no other attenuation air may contribute to the attenuation force. The Specification's teaching is limited to requiring that some air come from only the opposing sidewall (see Specification, page 20, lines 24 and 25). Since Claim 23 does preclude additional attenuation air the Specification does not preclude additional attenuation air, the claim is therefore beyond the scope of the originally filed Specification. Even if the specification is held to indicate only one sidewall providing attenuation air, the specification does not preclude any other source of attenuation air as claimed with the closed claim language of "consisting." For clarity, the following chart shows Claim language and Specification language and the corresponding bounds of the claim and scope of the Specification.

Claim 23	Applicant's Specification

Interpreted text	"...wherein the pneumatic attenuation force is provided by air consisting of attenuation air only entering the drawing slot from the drawing slot sidewall opposing the drawing slot sidewall upon which the electrostatic charging unit is located." (Claim 23, lines 14-16)	"…utilizing attenuation air entering the fiber drawing unit only from the opposing sidewall of the attenuation chamber or fiber drawing slot." (see Specification, page 20, lines 24 and 25)
Examiner's Interpretation	Only air from the opposing sidewall may be present; there may be no other attenuation air present than the air coming from the opposing sidewall. The term "consisting" precludes other attenuation air from being present.	There must be at least some attenuation air present which only came from the opposing sidewall.

Claim Rejections - 35 USC § 103

Claims 1 and 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Haynes '071 (WO 02/052071 A2) in view of Maggio '134 (WO 00/65134 A1; US Patent No. 6,966,762 B1 relied upon for translation and citations) and Epstein et al. (US Patent No. 3,052,009).

With respect to Claim 1, Haynes '071 teaches providing a plurality of fibers 12, subjecting the fibers to a pneumatic attenuation force in a drawing slot 14, the attenuation force imparting a velocity to the fibers, subjecting the fibers to an applied electrostatic charge before the fibers at the end of the draw slot using an electrostatic charging unit with oppositely directed components 20 and 22 (each charging unit

including an emitter device and a target device) (see Fig. 1), and collecting the fibers into a web on a moving surface 26.

Haynes '071 does not expressly teach providing a diffusion chamber.

Maggio '134 teaches providing a diffusion chamber 6 after the drawing slot 5.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Maggio '134's diffusion chamber with Haynes '071 nonwoven web process in order to adjust the width of the bundle of fibers and impact speed of the filaments on the receiving belt (see col. 3, lines 39-43).

Haynes '071 does not expressly teach having two or more oppositely directed electrostatic charging units such that at least one emitter device is configured on each side of the fibers so that an electrostatic charge is generated from opposite directions transverse to the direction of travel of the plurality of fibers.

Epstein teaches alternating the electrostatic charge from one side to another and back to the first side material (two or more oppositely directed electrostatic charging units such that at least one emitter device is configured on each side of the fibers so that an electrostatic charge is generated from opposite directions transverse to the direction of travel of the plurality of fibers) (see figs. 7 and 8), and further that the particular placement and arrangement of electrodes is familiar to the ordinary artisan (see col. 3, lines 39-44).

It would have been prima facie obvious to one of ordinary skill in the art at the time of the invention to incorporate the method of Epstein into that of Haynes in order to provide the ability to vary the crimping to attain greater softness (Epstein, 3:3-6) into

fabrics of Haynes '071, which are meant to touch the skin, such as socks (see Haynes '071, page 12, line 10).

With respect to Claim 3, Maggio '134's sidewalls are unvented (See Fig. 3, Ref. No. 15).

Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Haynes '071 (WO 02/052071 A2) in view of Maggio '134 (WO 00/65134 A1; US Patent No. 6,966,762 B1 relied upon for translation and citations) and Epstein et al. (US Patent No. 3,052,009) as applied to Claim 1, and further in view of Trimble (WO 93/21370 A1).

With respect to Claim 2, Haynes '071 and Maggio '134 teach a process of making a non-woven as previously described.

Haynes '071 and Maggio '134 do not appear to expressly teach having electrostatic charging units that are in a staggered configuration.

Trimble teaches making the electrostatic charging units locations staggered up and down rather than all in a single line (see Fig. 4, Ref. No. 74 and page 15, lines 24-27).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Trimble's charging unit positions with Haynes '071's and Maggio '134's non-woven web forming process in order to form a more even distribution of filaments in the web (see Trimble, page 20, lines 14-16) and because it is an alternative embodiment of a known charging unit configuration.

Claims 4 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Haynes '071 (WO 02/052071 A2) in view of Maggio '134 (WO 00/65134 A1; US Patent No. 6,966,762 B1 relied upon for translation and citations) Epstein et al. (US Patent No. 3,052,009) as applied to Claim 1, and further in view of Haynes '379 (US Patent No. 6,117,379).

With respect to Claim 4, Haynes '071 and Maggio '134 teach a process of making a non-woven as previously described.

Haynes '071 and Maggio do not appear to expressly teach that the pneumatic attenuation force is provided by perturbed attenuation air.

Haynes '379 teaches using a bar arrangement 10 in front of airflow, which causes turbulent (perturbed) gas flow (see Haynes '379 col. 1, lines 62-67).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Haynes '379's bar arrangement in front of the air flow of the drawing chambers 16 of Haynes '071 and Maggio '134 in order to quench or cool via better penetration of the gas among the filaments (see Haynes '379 col. 1, lines 62-67). This would reduce time spent between die and slot for quenching or cooling because some or more quenching would occur inside the slot.

With respect to Claim 5, Haynes '071 and Maggio '134 teach a process of making a non-woven as previously described.

Haynes '071 and Maggio '134 do not appear to expressly teach at least one of the opposed diverging sidewalls comprises at least one vortex generator.

Haynes '379 teaches using a bar arrangement 10 in front of airflow, which causes turbulent (perturbed) gas flow (see Haynes '379 col. 1, lines 62-67).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Haynes '379's bar arrangement in front of the air flow of the (Maggio '134's) diffusion chamber 14 of Haynes '071 and Maggio '134 because it would cause gas flow turbulence (see Haynes '379 col. 1, lines 62-67), and it is desirous to slow down the air flow at the exit of the diffusion chamber in order to distribute the filaments randomly over a receiving belt (see Maggio '134, col. 1, lines 55-57).

Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Maggio '381 (FR 2,825,381 A1; US Patent No. 6,974,316 B2 relied upon for translation and citations) in view of Haynes '071 (WO 02/052071 A2) and Epstein et al. (US Patent No. 3,052,009).

With respect to Claim 11, Maggio teaches providing a plurality of fibers F, subjecting the fibers to a pneumatic attenuation force in a drawing slot (see Fig. 3, at Ref. No. 13), reducing the velocity of the fibers in a diffusion chamber 6, subjecting the fibers to an applied electrostatic charge 17 while the fibers are in the diffusion chamber, and collecting the fibers on a moving web surface 7.

Maggio '381 does not appear to expressly teach each charging unit including an emitter device and a target device and at least one electrostatic charging unit is located upon each of the diverging sidewalls.

Haynes '071 teaches subjecting the fibers to an electrostatic charging unit with oppositely directed components 20 and 22 (each charging unit including an emitter device and a target device) (see Fig. 1).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use Haynes '071's oppositely directed charging units in the diverging sidewalls of Maggio '381 in order to give improvements maximum overall voltage (see Haynes '071, page 16, Table 1), improve formation (page 16, lines 33-35), and because it is a known configuration for electrostatic charging.

Maggio '381 in view of Haynes '071 does not expressly teach having two or more oppositely directed electrostatic charging units such that at least one emitter device is configured on each side of the fibers so that an electrostatic charge is generated from opposite directions transverse to the direction of travel of the plurality of fibers.

Epstein teaches alternating the electrostatic charge from one side to another and back to the first side material (having two or more oppositely directed electrostatic charging units such that at least one emitter device is configured on each side of the fibers so that an electrostatic charge is generated from opposite directions transverse to the direction of travel of the plurality of fibers) (see figs. 7 and 8), and further that the particular placement and arrangement of electrodes is familiar to the ordinary artisan (see col. 3, lines 39-44).

It would have been prima facie obvious to one of ordinary skill in the art at the time of the invention to incorporate the method of Epstein into that of Maggio '381 in

order to provide the ability to vary the crimp to produce greater softness (Epstein, 3:3-6).

Claims 11 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schmit (WO 02/34990 A1; US Patent App. Pub. No. 2004/0028763 A1 relied upon for translation and citations) in view of Epstein et al. (US Patent No. 3,052,009).

With respect to Claim 11, Schmit teaches forming fibers [0004], subjecting the fibers to pneumatic attenuation force in a drawing slot, the attenuation force imparting a velocity to the fibers [0004], reducing the velocity of the fibers in a diffusion chamber formed between opposed diverging sidewalls [0004], subjecting the fibers to an applied electrostatic charge while the fibers are in the diffusion chamber by one electrostatic charging unit with oppositely directed components 11 and 8, with 11 located upon a diverging sidewall 15 and 8 located on the other diverging sidewall 14 (each charging unit including an emitter device and a target device) (see [0006], [0020], [0021], and fig. 2 and 3), and collecting the fibers into a web on a moving forming surface (see Fig. 1, Ref. No. 7).

Schmit does not expressly teach having two or more oppositely directed electrostatic charging units such that at least one emitter device is configured on each side of the fibers so that an electrostatic charge is generated from opposite directions transverse to the direction of travel of the plurality of fibers.

Epstein teaches alternating the electrostatic charge from one side to another and back to the first side material (having two or more oppositely directed electrostatic

charging units such that at least one emitter device is configured on each side of the fibers so that an electrostatic charge is generated from opposite directions transverse to the direction of travel of the plurality of fibers) (see figs. 7 and 8), and further that the particular placement and arrangement of electrodes is familiar to the ordinary artisan (see col. 3, lines 39-44).

It would have been prima facie obvious to one of ordinary skill in the art at the time of the invention to incorporate the method of Epstein into that of Schmit in order to provide the ability to vary the crimp to produce greater softness (Epstein, 3:3-6).

With respect to Claim 15, Schmit teaches that the diffusers can have no openings (unvented) (see [0010]. Though Schmit states "preferably" with respect to having vents, this is merely a preferred embodiment.

Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Maggio '381 (FR 2,825,381 A1; US Patent No. 6,974,316 B2 relied upon for translation and citations) in view of Haynes '071 (WO 02/052071 A2) and Epstein et al. (US Patent No. 3,052,009) as applied to Claim 11, and further in view of Trimble (WO 93/21370 A1).

With respect to Claim 13, Maggio '381 teaches a process of making a non-woven as previously described.

Maggio '381 does not appear to expressly teach having one electrostatic charging unit located substantially closer to the diffusion chamber than at least one other electrostatic charging unit.

Trimble teaches making the electrostatic charging units locations staggered (substantially closer to the diffusion chamber than at least one other electrostatic charging unit) (see Fig. 4, Ref. No. 74 and page 15, lines 24-27).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Trimble's charging unit positions with Maggio '381's non-woven web forming process in order to form a more even distribution of filaments in the web (see Trimble, page 20, lines 14-16) and because it is an alternative embodiment of a known charging unit configuration.

Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Schmit (WO 02/34990 A1; US Patent App. Pub. No. 2004/0028763 A1 relied upon for translation and citations) in view of Epstein et al. (US Patent No. 3,052,009) as applied to Claim 11, and further in view of Trimble (WO 93/21370 A1).

With respect to Claim 13, Schmit teaches a process of making a non-woven as previously described.

Schmit does not appear to expressly teach having one electrostatic charging unit located substantially closer to the diffusion chamber than at least one other electrostatic charging unit.

Trimble teaches making the electrostatic charging units locations staggered (substantially closer to the diffusion chamber than at least one other electrostatic charging unit) (see Fig. 4, Ref. No. 74 and page 15, lines 24-27).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Trimble's charging unit positions with Schmit's non-woven web forming process in order to form a more even distribution of filaments in the web (see Trimble, page 20, lines 14-16) and because it is an alternative embodiment of a known charging unit configuration.

Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Maggio '381 (FR 2,825,381 A1; US Patent No. 6,974,316 B2 relied upon for translation and citations) in view of Haynes '071 (WO 02/052071 A2) and Epstein et al. (US Patent No. 3,052,009) as applied to Claim 11 above, and further in view of Haynes '379 (US Patent No. 6,117,379).

With respect to Claim 14, Maggio '381 teaches making a nonwoven web as previously described but does not appear to expressly teach that the pneumatic attenuation force is provided by perturbed attenuation air.

Haynes '379 teaches using a bar arrangement 10 in front of airflow, which causes turbulent (perturbed) gas flow (see Haynes '379 col. 1, lines 62-67).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Haynes '379's bar arrangement in front of the air flow of the Maggio '381 in order to quench or cool via better penetration of the gas among the filaments (see Haynes '379 col. 1, lines 62-67). This would reduce time spent between die and slot for quenching or cooling because some or more quenching would occur inside the slot.

Claims 14 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schmit (WO 02/34990 A1; US Patent App. Pub. No. 2004/0028763 A1 relied upon for translation and citations) and Epstein et al. (US Patent No. 3,052,009) as applied to Claim 11, and further in view of Haynes '379 (US Patent No. 6,117,379).

With respect to Claim 14, Schmit teaches a process of making a non-woven as previously described.

Schmit does not appear to expressly teach that the pneumatic attenuation force is provided by perturbed attenuation air.

Haynes '379 teaches using a bar arrangement 10 in front of airflow, which causes turbulent (perturbed) gas flow (see Haynes '379 col. 1, lines 62-67).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Haynes '379's bar arrangement in front of the air flow of the slot of Schmit in order to quench or cool via better penetration of the gas among the filaments (see Haynes '379 col. 1, lines 62-67). This would reduce time spent between die and slot for quenching or cooling because some or more quenching would occur inside the slot.

With respect to Claim 16, Schmit teaches a process of making a non-woven as previously described.

Schmit does not appear to expressly teach that at least one of the opposed diverging sidewalls comprises at least one vortex generator.

Haynes '379 teaches using a bar arrangement 10 in front of airflow, which causes turbulent (perturbed) gas flow (see Haynes '379 col. 1, lines 62-67).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Haynes '379's bar arrangement in front of the air flow of lateral openings 16 of the diffusion chamber 14 of Schmit because it would cause gas flow turbulence (see Haynes '379 col. 1, lines 62-67), which would spread the fiber curtain, it is desirous to spread the curtain since it increases uniformity of the web (see Schmit [0004]).

Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over Maggio '134 (WO 00/65134 A1; US Patent No. 6,966,762 B1 relied upon for translation and citations) in view of Davis et al. (US Patent No. 6,660,218 B2).

With respect to Claim 23, Maggio '134 teaches providing a plurality of fibers F, subjecting the fibers to an attenuation force in a drawing slot (at Fig. 3, Ref. No. 13), subjecting the fibers to a electrostatic charging unit 11 located on the sidewall, reducing the velocity of the fibers in a diffusion chamber being formed substantially between opposed diverging sidewalls 15, and collecting the fibers onto a web of a moving surface 7.

Maggio '134 does not appear to expressly teach providing attenuation force by providing air consisting of attenuation air only entering the drawing slot from the drawing slot sidewall.

Davis teaches providing air from a nozzle to direct filaments with one air nozzle (attenuation air only entering the drawing slot from one slot sidewall) (see col. 1, lines 37-51).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Davis's attenuation air supply configuration from a slot sidewall with Maggio '134's teaching of attenuation in order to minimize cost of supplied plant air and to minimizing non-uniformity in the laydown process (see Davis, col. 1, lines 14-34). Moreover, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Davis's use of the attenuation to direct the filaments (see Davis, col. 1, lines 37-51) with the air toward Maggio's electrostatic charging unit 11 because Davis provides additional direction control to achieve Maggio's process of subjecting the filaments to the charging unit 11.

(10) Response to Argument

Appellant argues in section 7 A, pages numbered 9-13 by Appellant, that there is no substantial difference in limitations regarding attenuation air between original Claim 23 and instant Claim 23 since a disclosure of attenuation air coming from only a specific sidewall necessarily excludes additional attenuation air coming from any other source. In response, the Examiner notes that Appellant's disclosure indicates that attenuation air from only a specific sidewall is present (see Specification, page 20, lines 24 and 25). Appellant's Specification does not indicate that only attenuation air from a specific sidewall is present. Therefore, even if Appellant's Specification is held to indicate only one sidewall providing attenuation air, the specification does not preclude any other

source of attenuation air as claimed with the closed claim language of "consisting." For purposes of clarifying the Examiner's interpretation, the Examiner references the chart of Claim language and Specification language and the corresponding bounds of the claim and scope of the Specification within the 35 U.S.C. § 112, first paragraph, rejections portion of section (9) Grounds of Rejection.

Appellant argues in section 7 B, pages numbered 14-17 by Appellant, that Haynes '071's lack of teaching Claim 1's limitation of at least two oppositely directed charging units and a charging unit being an opposing target and emitter is not met by Epstein since Epstein's oppositely directed charging units fail to include targets. In response, the Examiner relies upon Haynes '071's teaching of opposing components 20 and 22 (target and emitter) of a charging unit (see Haynes, '071, Fig. 1), and the Examiner relies upon Epstein for teaching oppositely directed charging units (see Epstein, figs. 7 and 8). Such teachings appear to be acknowledged by Appellant's arguments. Thus, further discussion of Haynes '071 not teaching oppositely directed charging units and Epstein not teaching the components of a charging unit is moot.

Appellant argues in sections 7 B and 7 C, pages numbered 17-21 by Appellant, that Epstein is not useful for purposes of a web forming process to treat a streaming volume of fibers. In response, the Examiner relied upon Epstein and Haynes '071's consistent purpose in that it would have been prima facie obvious to one of ordinary skill in the art at the time of the invention to incorporate the method of Epstein into that of Haynes in order to provide the ability to vary the crimping to attain greater softness (Epstein, 3:3-6) into fabrics of Haynes '071, which are meant to touch the skin, such as

socks (see Haynes '071, page 12, line 10). Moreover, although Appellant's arguments with respect to individual fiber crimping being contrary to fiber separation and directional distribution, the arguments of counsel cannot take the place of evidence in the record.

Appellant argues in section 7 C, pages numbered 21 and 22 by Appellant, that alternative embodiments for charging units are not obvious variants since alternative embodiments known in the art are not adequate to sustain a 35 U.S.C. § 103(a) rejection. In response, the Examiner notes that alternative embodiments suitable for their intended use support an obviousness determination and notes that the rationale to support a conclusion that the claim would have been obvious is that the substitution of one known element for another yields predictable results to one of ordinary skill in the art (see MPEP §§ 2143(B) and 2144.07). In this instance, the intended use and results is forming a more even distribution of filaments in the web (see Trimble, page 20, lines 14-16), the use and results is at least to charge the stream of fibers.

Appellant argues in section 7 D 1 and 7 I, pages numbered 22-24 and 36 by Appellant, that Haynes '379 pertains to quenching air, that the process of Haynes '071 as modified by Maggio '134 uses attenuation air, and quenching air has no applicability in processes using attenuation air. In response, the Examiner notes that Haynes '379's bar arrangement is combined in the air flow of the drawing chambers 16 of Haynes '071 as modified by Maggio '134. Haynes '071 does include quenching via a spunbonding process of providing a fiber that has been cooled/quenched (see Haynes '071, page 6, line 21 through page 7, line 16 and page 15, lines 22-26). Thus, Haynes '379 and Haynes '071 as modified by Maggio '134 are directed to quenching air which would

promote the use of Haynes '379's bar arrangement in front of the air flow of the drawing chambers 16 of Haynes '071 and Maggio '134 in order to quench or cool via better penetration of the gas among the filaments (see Haynes '379 col. 1, lines 62-67). This would reduce time spent between die and slot for quenching or cooling because some or more quenching would occur inside the slot.

Appellant argues in section 7 D 2, page numbered 24 by Appellant, that Haynes '379 does not teach the limitation of making a diverging sidewall become a vortex generator. In response, the Examiner notes that Haynes '379's bar arrangement is combined to be in front of the air flow of the (Maggio '134's) diffusion chamber 14 of Haynes '071 and Maggio '134. Maggio '134's diffusion chamber 6 after the drawing slot 5 is relied upon for the claimed diverging sidewall configuration.

Appellant argues in sections 7 E and 7 I, pages numbered 24-27 and 36 by Appellant (and similar to Appellant's Arguments in section 7 B, pages numbered 14-17 by Appellant), that Maggio '381's lack of teaching Claim 11's limitation of two or more oppositely directed charging units and a charging unit being a target and emitter on opposite sidewalls is not met by Epstein since Epstein's oppositely directed charging units fail to include targets. In response, the Examiner relies upon the teaching of Maggio '381 in view of Haynes '071 for teaching opposing components 20 and 22 (target and emitter) of a charging unit (see Haynes, '071, Fig. 1), and the Examiner relies upon Epstein for teaching oppositely directed charging units (see Epstein, figs. 7 and 8). Such teachings appear to be acknowledged by Appellant's arguments. Thus, further discussion of Maggio '381 in view of Haynes '071 not teaching oppositely

directed charging units and Epstein not teaching the components of a charging unit is moot.

Appellant argues in sections 7 E and 7G, pages numbered 27-30 and 35 by Appellant (and similar to Appellant's Arguments in sections 7 B and 7C, pages numbered 14-17 by Appellant), that Epstein is not useful for purposes of a web forming process to treat a streaming volume of fibers. In response, the Examiner relied upon Epstein and Maggio '381 in view of Haynes '071's consistent purpose in that it would have been prima facie obvious to one of ordinary skill in the art at the time of the invention to incorporate the method of Epstein into that of Haynes in order to provide the ability to vary the crimping to attain greater softness (Epstein, 3:3-6) into fabrics of Maggio '381 in view of Haynes '071, which are meant to touch the skin, such as socks (see Haynes '071, page 12, line 10). Moreover, although Appellant's arguments with respect to individual fiber crimping being contrary to fiber separation and directional distribution, the arguments of counsel cannot take the place of evidence in the record.

Appellant argues in sections 7 F, 7 H, and 7 J, pages numbered 30-33, 35, and 37 by Appellant (and similar to Appellant's Arguments in section 7 B, pages numbered 14-17 by Appellant), that Schmit's lack of teaching Claim 11's limitation of two or more oppositely directed charging units and a charging unit being a target and emitter on opposite sidewalls is not met by Epstein since Epstein's oppositely directed charging units fail to include targets. In response, the Examiner relies upon the teachings of Schmit's for teaching one electrostatic charging unit with oppositely directed components 11 and 8, with 11 located upon a diverging sidewall 15 and 8 located on

the other diverging sidewall 14 (see Schmit, [0006], [0020], [0021], and figs. 2 and 3), and the Examiner relies upon Epstein for teaching oppositely directed charging units (see Epstein, figs. 7 and 8). Such teachings appear to be acknowledged by Appellant's arguments. Thus, further discussion of Schmit not teaching oppositely directed charging units and Epstein not teaching the components of a charging unit is moot.

Appellant argues in section 7 F 1, pages numbered 33-35 by Appellant that Schmit fails to teaching the claimed limitation of Claim 15 of unvented sidewalls since "preferably" does not provide for no lateral openings. In response, all the teachings of Schmit are relied upon by the Examiner including the recitation of the preferable presence of openings. Thus, Schmit teaches that the diffusers can have no openings (unvented) (see [0010]. Though Schmit states "preferably" with respect to having vents, this is merely a preferred embodiment.

Appellant argues in section 7 J 1, pages numbered 37-39 by Appellant (and similar to Appellant's Arguments in section 7 D 1, pages numbered 22-24 by Appellant), that Haynes '379 pertains to quenching air, that the process of Schmit in view of Epstein uses attenuation air, and quenching air has no applicability in processes using attenuation air. In response, the Examiner notes that Haynes '379's bar arrangement is combined in front of the air flow of the slot of Schmit. Schmit does include quenching via a spunbonding process of providing a fiber that has been cooled/quenched (see Schmit, [0004]). Thus, Haynes '379 and Schmit in view of Epstein are directed to quenching air which would promote the use of Haynes '379's bar arrangement in front of the air flow of the slot of Schmit in order to quench or cool via better penetration of

the gas among the filaments (see Haynes '379 col. 1, lines 62-67). This would reduce time spent between die and slot for quenching or cooling because some or more quenching would occur inside the slot.

Appellant argues in section 7 J 2, page numbered 39 by Appellant (and similar to Appellant's Arguments in section 7 D 2, page numbered 24 by Appellant), that Haynes '379 does not teach the limitation of making a diverging sidewall become a vortex generator. In response, the Examiner notes that Haynes '379's bar arrangement is combined to be in front of the air flow of lateral openings 16 of the diffusion chamber 14 of Schmit. Schmit's diffusion chamber 14 is relied upon for the claimed diverging sidewall configuration.

Appellant argues in section 7 K, pages numbered 39-41 by Appellant, that Maggio '134 fails to teach the claim limitation of the electrostatic charging occurs in a drawing slot F. In response, the Examiner notes that air is provided above the diverging walls in Maggio '134, and the slowing occurs between the diverging walls (see col. 5, lines 44-48). Thus, the slot of fast-moving air above the diverging walls would continue to pull the filaments. Thus, Maggio's providing of air necessarily occurs within a drawing slot.

Appellant argues in section 7 K, pages numbered 41-44 by Appellant, that Davis's air nozzle 32 does not occur in a drawing slot as required by Claim 23. In response, the Examiner notes that absent evidence of record to the contrary, Davis is relied upon for all of its teachings. Specifically, Davis teaches providing attenuation air

from a nozzle to direct filaments with one air nozzle (see col. 1, lines 37-51). The arguments of counsel cannot take the place of evidence in the record.

(11) Related Proceeding(s) Appendix

Copies of the court or Board decision(s) identified in the Related Appeals and Interferences section of this examiner's answer are provided herein. See *Ex parte Haynes* (B.P.A.I. Appeal No. 2008-3926, Application No. 10/325,140, decided 26 August 2008) and *Ex parte Haynes (*B.P.A.I. Appeal No. 2008-1795, Application No. 10/694,420, decided 30 April 2008) labeled as Appendix A and Appendix B, respectively.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

/Patrick Butler/

Examiner, Art Unit 1791

Conferees:

/Christina Johnson/

Supervisory Patent Examiner, Art Unit 1791

Christina Johnson

/Anthony McFarlane/